LITERATURE NUMBER MPD 15078

Atwood Mobile Products LLC
1120 North Main Street • Elkhart, IN 46514
PHONE: 574•264•2131 FAX: 574•262•2550
INTERNET: http://www.askforatwood.com

Rooftop Air Conditioner for Recreational Vehicles

Ducted Models

AC-1361 & AC-1511

•Installation •Operation •Maintenance

Effective 07/31/2013

This air conditioner design has been certified by the Canadian Standards Association for installation in recreation vehicles.

SERVICE CALLS & QUESTIONS

Location and phone numbers of qualified Service Centers can be found at our website http:/www.atwoodmobile.com or call 866-869-3116 to locate a Service Center.

WARNING: It is important that this installation manual is read and understood before installation. The unit must be installed by a qualified service technician. Failure to properly install the unit or attempting to modify it in any way can be extremely hazardous and may result in property damage and personal injury and will void the warranty.

BEFORE INSTALLATION

Ensure that the installation instructions have been properly read and understood.

Installation must conform to Local wiring codes and regulations or, in the absence of local codes, the Standard on Recreational Vehicles, NFPA 1192. and National Electrical Code NFPA 70.

DO NOT attempt to modify or add components to the installation procedure.

This equipment must only be serviced by a licensed refrigeration mechanic to maintain warranty coverage.

If your installation varies from the method outlined please contact Atwood Mobile Products, LLC for specialty advice.

Atwood will not be held responsible for problems relating to incorrect or improper installation methods.

GENERAL INFORMATION

I. PURPOSE

This Atwood AirCommand air conditioning unit is designed for installation on the roof of a recreational vehicle to provide cooling with AC1361 models and cooling/heating with AC1511 models.

-The roof must be capable of supporting the weight of the unit which is 86lbs (39Kg).

-The absolute minimum thickness of the roof must not be less than 1 inch (25mm).

-The maximum thickness of the roof must not exceed 5 inches (125mm).

-Trimming of the ductwork and/or bolts may be necessary depending on the roof thickness

It is important that the unit is installed properly and according to the recommended guidelines.

II. ENSURING EFFECTIVE OPERATION

The effectiveness of the air conditioner is dependent on several factors e.g. size and heat load of the vehicle. When an Atwood unit is installed Atwood assumes that the vehicle is well insulated with 1 inch (25mm) foam minimum in all walls and roof, that the windows are of moderate size (preferably double glazed) and the roof vents are airtight when closed. Other methods of reducing heat load include:

-Closing all doors, hatches, windows and blinds

-Position the vehicle so if porch is used, it will face the sun and protect the windows from direct radiation.

-Turning off appliances that might increase the heat load

-Ensuring the vehicle is parked in a shaded position.

In periods of extreme high temperature it is recommended to start the air conditioner earlier in the morning to greatly improve its ability to cope with the expected high heat load.

III. CONDENSATION

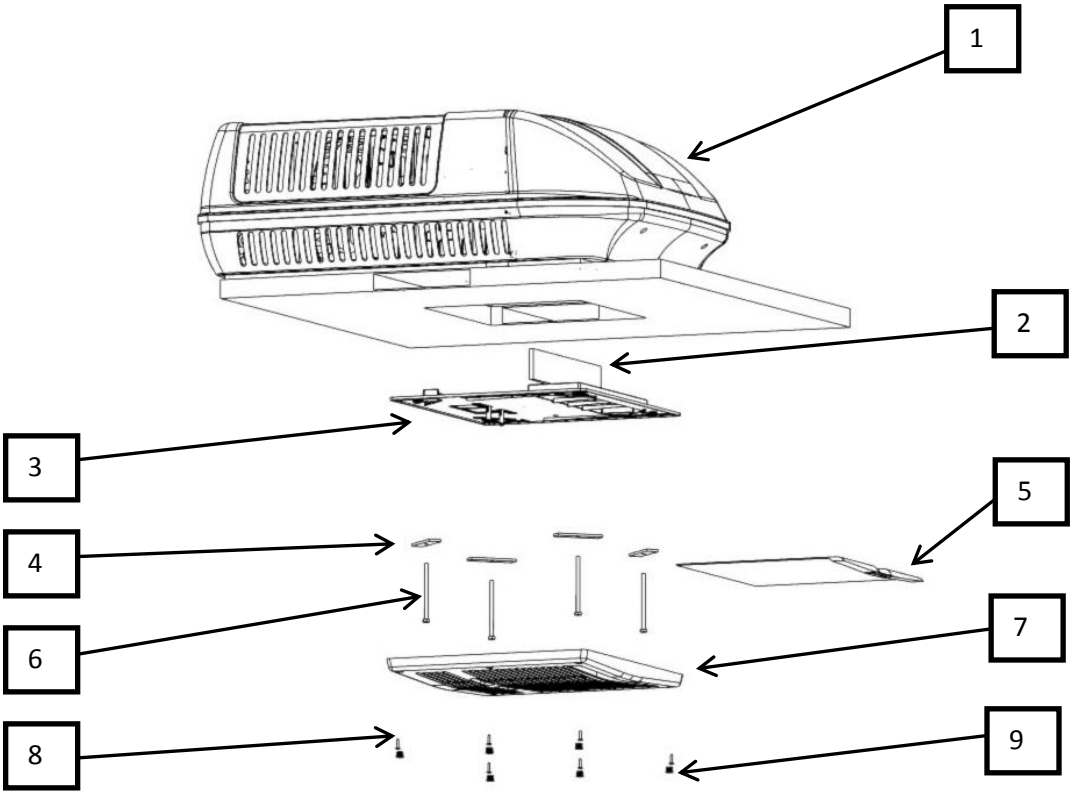
In areas of high humidity, the humid air within the RV will cause "sweating" or condensation in parts of the unit as the humid warm air contacts the colder air discharge system. If this occurs please ensure the following:

-Closing all doors, hatches, windows and blinds to limit the ingress of warm humid air

- Avoid running the inside fan on LOW or AUTO in such conditions. Running the fan on HI fan speed will result in higher airflow and reduce the tendency to have condensation form.

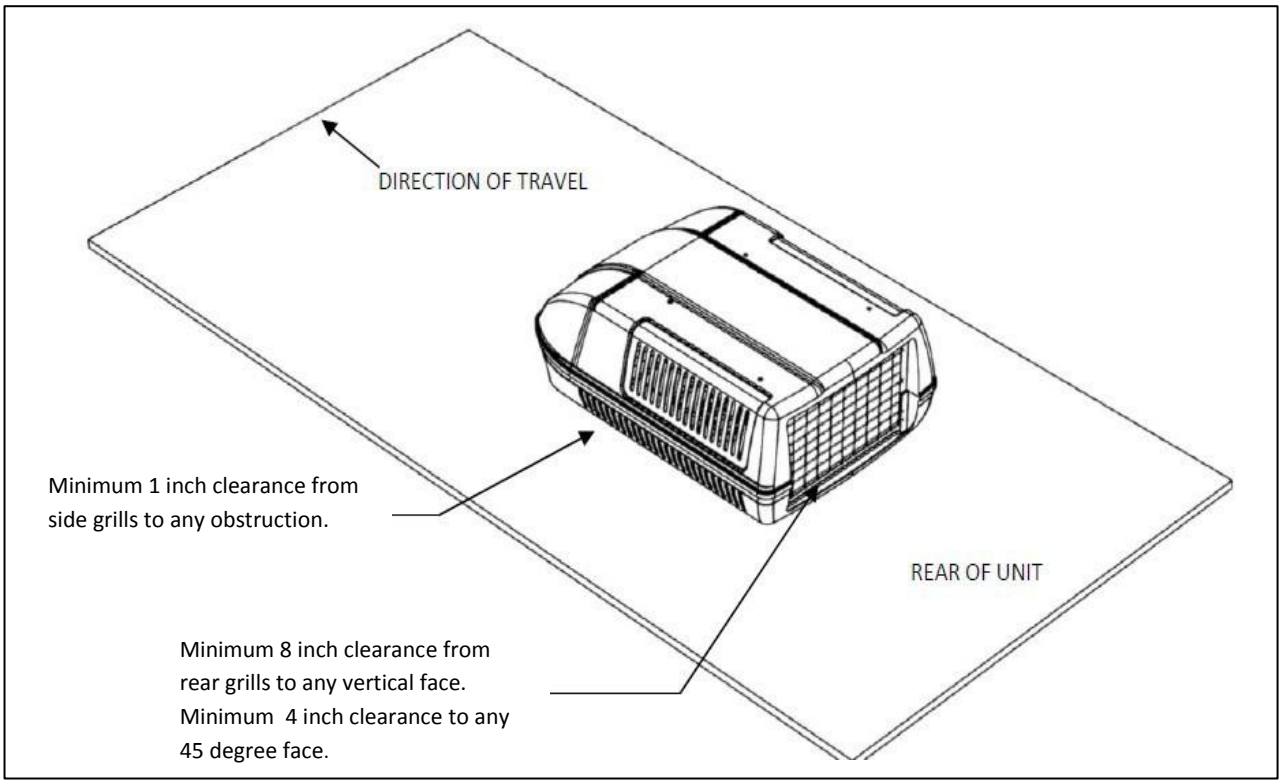
Installation Guide – Ducted Atwood Air Command

Exploded view of Installation Parts



1. Air Command Cormorant Rooftop Air Conditioner
2. Polystyrene baffle x 1
3. Plenum deck assembly x 1
4. Hold down bars x 4
5. Filter x 1
6. Hold down bolts M8 x 4
7. Plenum fascia x 1
8. Screw, button head 20mm x 6
9. Cover plugs x 6
10. Control Pad & Extension cable (not shown)
11. Roof sealing gasket (not shown)

INSTALLATION POSITION


DIRECTION OF TRAVEL
Minimum 1 inch clearance from side grills to any obstruction.
REAR OF UNIT
Minimum 8 inch clearance from rear grills to any vertical face.
Minimum 4 inch clearance to any 45 degree face.

Unit Installation

Before beginning, mark out the position of the unit considering the following important requirements:
- The air conditioner should be situated as centrally as possible on the vehicle, to ensure even air distribution.
- The front of the unit **MUST** face the direction of travel; failure to follow this instruction will result in damage to the condenser fans.
- If the vehicle is over 23' in length, or has an unusually high heat load (see General Operating Information section regarding expectations about insulation etc.), Atwood would recommend 2 or more units to cool effectively.
- When considering the installation position remember to check for clearance around the plenum inside the vehicle.
- Avoid an installation position where a bulkhead, cupboard or light fitting could interfere with the discharge air flow from the plenum.

CAUTION

It is important that the unit is never more than 5º from the horizontal and the rear of the unit should never be higher than the front.

- Contact Atwood if your installation differs significantly.

ASSESS ROOF STRENGTH

- The roof members **MUST** be strong enough to support the weight of the unit 86 lbs (39kg) without any roof deflection that will cause "pooling" of water around the unit. Contact your RV manufacturer to confirm the max load the roof is able to handle. If in any doubt consider the use of an external "H" frame.
- If the roof does not have an existing hole one must be cut. Cut from the roof then use the roof hole as a guide to cut through the ceiling. Contact your RV manufacturer for the best method to cut through the roof.
- The square hole in the roof (14" x 14") **MUST** be boxed up with minimum 3/4 inch square timber to provide a structure strong enough to withstand the compression of the installation bolts. This is also to ensure that air is not drawn from the roof cavity (Fig 3 & 4). Remember to leave access for wiring.
- Longitudinals **MUST** be fixed securely to the transverse roof members to transfer load (see Fig 3).

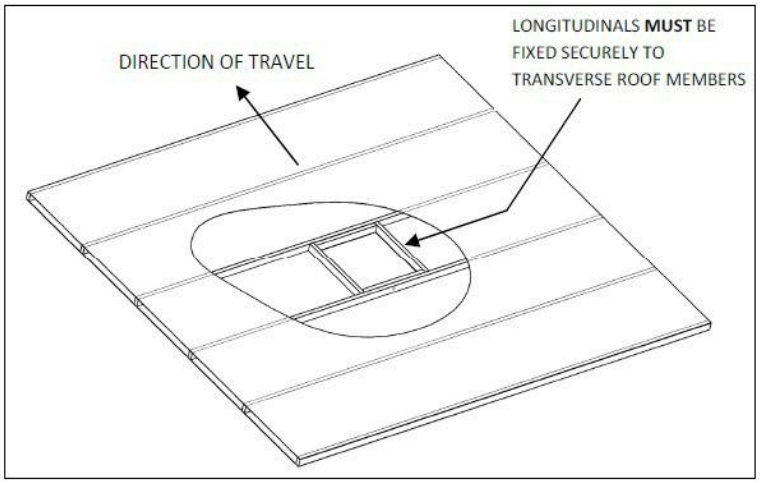


Fig 3: Shows an ideal roof structure with strong longitudinals and a 14' hole boxed

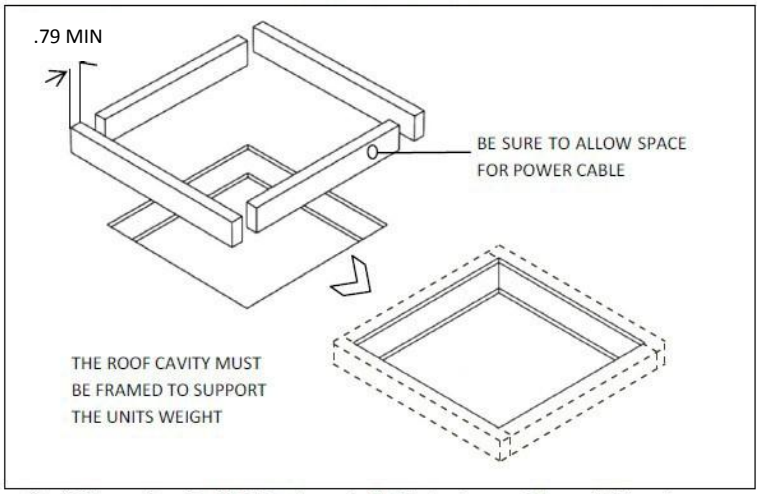


Fig 4: The roof cavity **MUST** be boxed with timber to provide a solid structure

WARNING

There may be electrical wiring located between the roof and ceiling. Ensure that power is properly disconnected at the supply (mains and/or battery). Failure to do so may result in personal injury or death

TIP: Always use crawl boards across the roof to avoid damage

POSITION UNIT ON ROOF

- Remove the air conditioner from the carton.
- Position the unit over the gasket so that the corners of the square hole in the RV roof line up with the corners of the square hole underneath the air conditioner (Fig 6).

TIP: Have one person inside the RV looking through the hole while the other is on the roof adjusting the position of the unit.

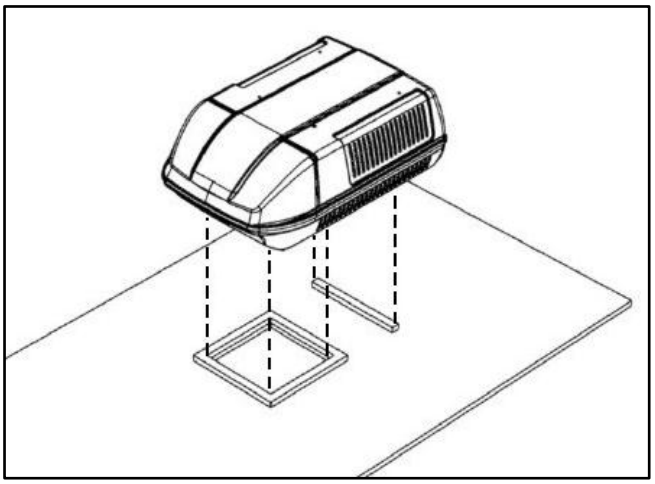


Fig 6- Gently set the unit over the roof gasket..

WARNING

The unit weights approximately 86 lbs (39kg). Ensure a two person lift or use a mechanical hoist to avoid the risk of injury.

-Do NOT slide the unit on the roof. This may damage the gasket and result in leaks.
- Position the unit so that the four M8 mounting holes will line up with the four corners of the square roof hole (Fig 7).

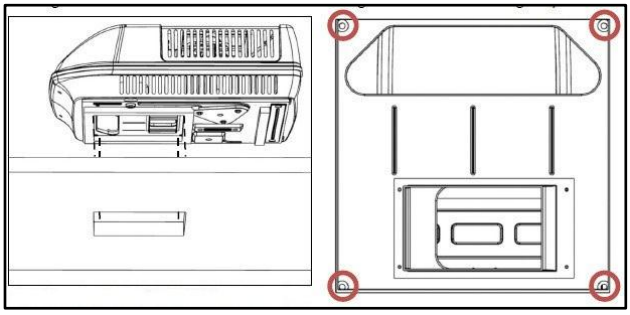


Fig 7- Shows the view from under the roof.

DETERMINE ROOF THICKNESS

-Measure the roof thickness and consult the table on next page to check if adjustments to the hold down bolt and duct length are required.

Roof Thickness - Inch (mm) – Include 'H' frame if	Duct length required – Inch (mm)	Hold down bolt length required – Inch (mm)
4.92 (125)	5.71 (145) as supplied	As supplied
3.94 (100)	4.72 (120) - Cut .98 (25)	As supplied
3.15 (80)	3.94 (100) – Cut1.77 (45)	As supplied
2.36 (60)	3.15 (80) – Cut 2.56 (65)	Cut 1.97 (50)
1.57 (40)	2.36 (60) – Cut 3.35 (85)	Cut 2.76 (70)
1.0 (25) (absolute	1.57 (40) – Cut 3.94 (100)	Cut 3.35 (85)

INTERCONNECTION CABLES

Three sets of interconnecting cables must be installed before installing the rooftop unit. The three sets of cables are for +12V power, connecting to the furnace, and a communication cable between the wall mounted thermostat and the rooftop unit.

+12V Power Connections

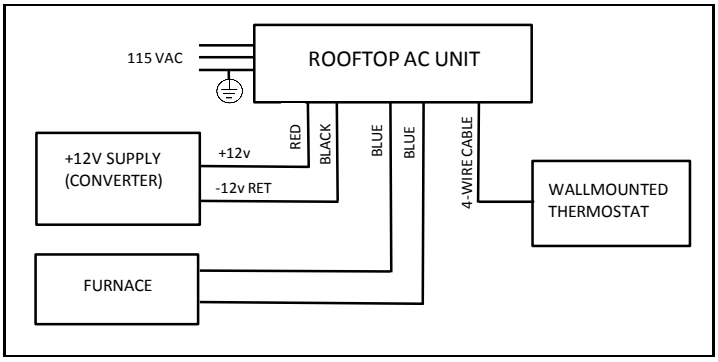
- Customer provided +12V to the red wire in the rooftop unit
- Customer provided -12V return to the black wire in rooftop unit

Furnace Connections

- Furnace output wire to one of the blue wires in the rooftop unit
- Furnace input wire to the other blue wire in the rooftop unit
  These two connections are interchangeable since the blue wires are connected to a relay contact in the rooftop unit

Communication Connection

- This is a 4-wire cable (supplied by Atwood) which connects the wall mounted thermostat to the rooftop unit.



Interconnection diagram for AC models with wall-mounted thermostat

CONNECT AC ELECTRICAL SUPPLY

Installation must conform to local wiring codes and regulations or, in the absence of local codes, the Standard on Recreational Vehicles, NFPA 1192. and National Electrical Code NFPA 70.

- Connect AC power supply to wire leads from unit
- Note:

Brown wire from rooftop unit to Black or Red wire from customer – AC Hot

Blue wire from rooftop unit to White wire from customer – AC Common

Yellow/Green wire from rooftop unit to Green wire from customer – Ground

⚠WARNING

Ensure that power is properly disconnected at the supply (mains and/or battery). Failure to do so may result in damage to the unit and personal injury or death.

AC connections can be made following the COC-1 procedure below using the connector: Atwood PN 15024.

COC-1 Self Contained Power Connector Installation Instructions For 2 Wire Cable With Ground Applications

The 2-circuit-with-ground connectors will splice non-metallic-sheathed cable in the following wire ranges and types:

Self Contained Connector -
2 Circuit with ground for Solid Wire

Wire Range AWG	Order No.	Optional Hand Tool	Optional Bench Mount Tool	Optional Bench Arbor Press	Housing Color
12-14	19045-1000 (COC-1)	19285-0074	N/A	64006-0200	White

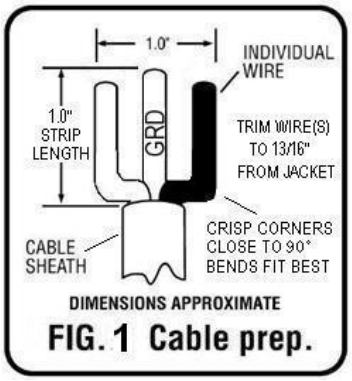


FIG. 1 Cable prep.

Reference Information
UL File Number: E182087,
CSA File Number: LR18689-C53
NEC Article: 550, 551, and 545
HUD Section: 3280.801
Current: 20A,Voltage: 300V

FIG. 2

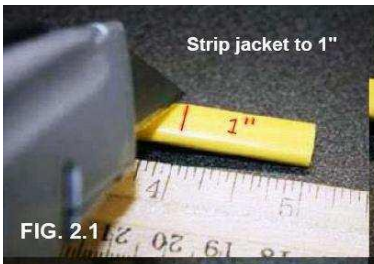


FIG. 2.1

FIG. 2.2

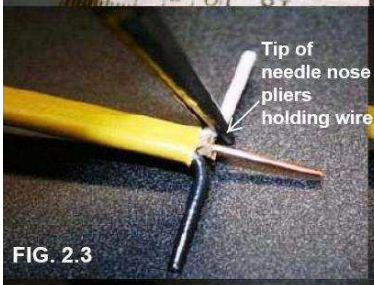


FIG. 2.3

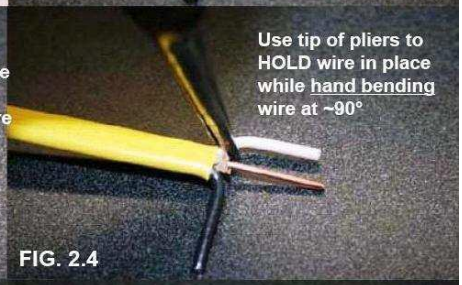


FIG. 2.4

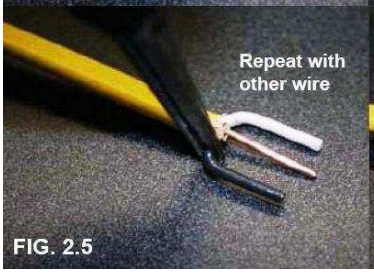


FIG. 2.5

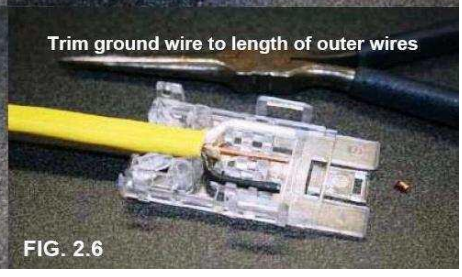
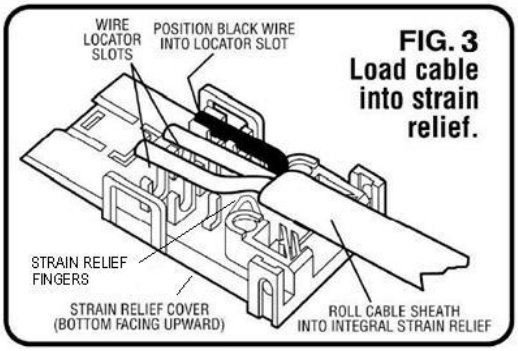


FIG. 2.6

COC-1 Installation Procedure:

1. Carefully strip and prepare the wires to the configuration as shown in Figure 1 using helpful hints shown in photographs of Figure 2.
2. Hold the clear strain relief cover with bottom facing upward as shown in Figure 3.
3. Lay wire into locator slots, making sure the black wire is placed into the polarization slot as shown in Figure 3.
4. Press the cable sheath into the integral strain relief slot as shown in Figure 3. Trimming of ground wire and possibly others will be necessary. Wires must not extend beyond the locators as shown in Figure 4!
5. While holding the strain relief cover, position the housing's hinge posts into the hinge slots and press down until both lock into place as shown in Figure 4.
6. Close the strain relief cover and housing by hand. Place the connector assembly into Molex tool (preferred) as shown in Figure 5. Squeeze the tool until the connector bottoms out and the locking latches engage on both sides. OR alternately, squeeze the top and bottom closed with tongue and groove pliers as shown in Figure 5.1. Pliers must be a minimum of 10" long. Squeeze firmly on both sides, squarely across the connector between ribs A and B to ensure wires seat completely into slots.
7. Inspect the connector to ensure the wires have been properly engaged into the housing assembly contacts. A properly terminated wire is fully seated into its proper slots with no significant bow of the cover. If the wires extend past the insulations tops, the wires must be re-terminated with a NEW CONNECTOR. Once the cover has been closed the connector cannot be re-used. Failure to comply with this procedure may result in the failure of the connector.
8. Mating and un-mating the completed connector is illustrated in Figure 6.


WIRE LOCATOR SLOTS
POSITION BLACK WIRE INTO LOCATOR SLOT
FIG. 3 Load cable into strain relief.
STRAIN RELIEF FINGERS
STRAIN RELIEF COVER (BOTTOM FACING UPWARD)
ROLL CABLE SHEATH INTO INTEGRAL STRAIN RELIEF

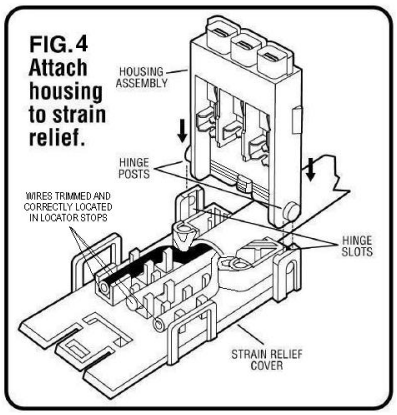
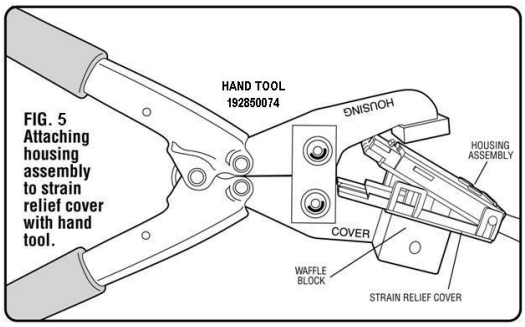


FIG. 4 Attach housing to strain relief.
HOUSING ASSEMBLY
HINGE POSTS
WIRES TRIMMED AND CORRECTLY LOCATED IN LOCATOR STOPS
HINGE SLOTS
STRAIN RELIEF COVER



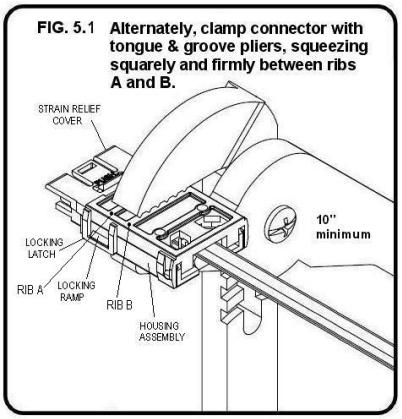


FIG. 5.1 Alternately, clamp connector with tongue & groove pliers, squeezing squarely and firmly between ribs A and B.
STRAIN RELIEF COVER
10" minimum
LOCKING LATCH
RIB A
LOCKING RAMP
RIB B
HOUSING ASSEMBLY

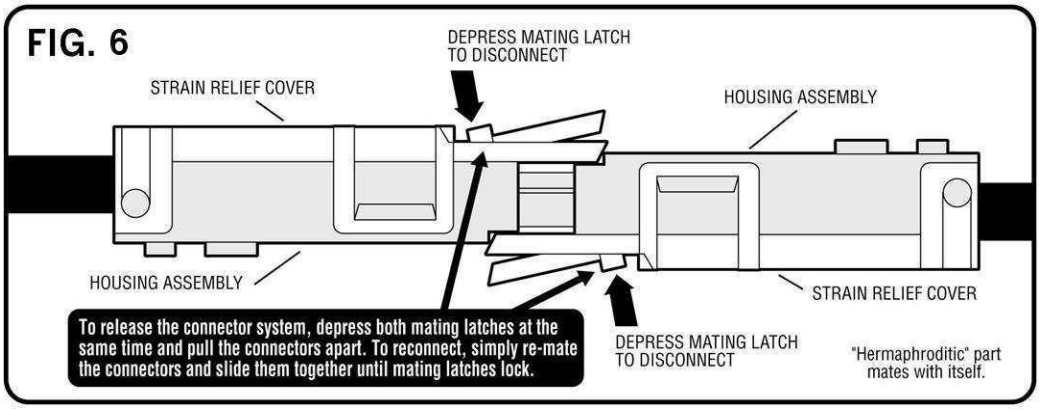
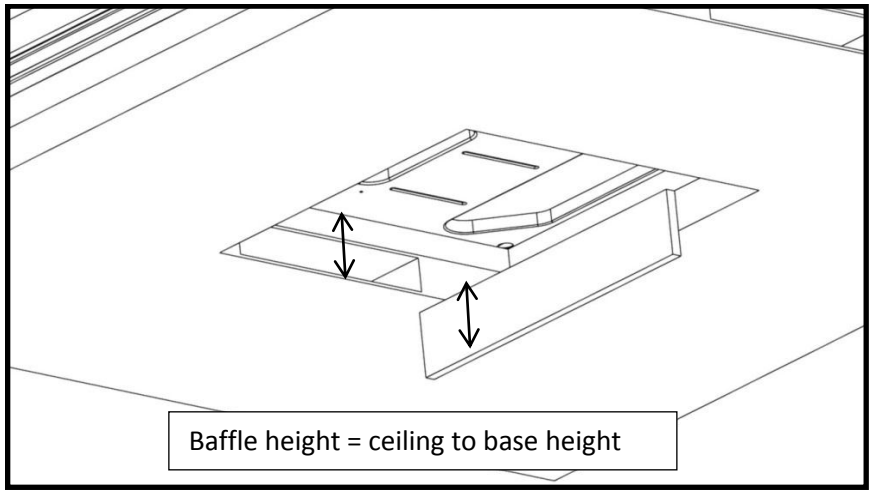


FIG. 6
DEPRESS MATING LATCH TO DISCONNECT
STRAIN RELIEF COVER
HOUSING ASSEMBLY
HOUSING ASSEMBLY
STRAIN RELIEF COVER
To release the connector system, depress both mating latches at the same time and pull the connectors apart. To reconnect, simply re-mate the connectors and slide them together until mating latches lock.
DEPRESS MATING LATCH TO DISCONNECT
"Hermaphroditic" part mates with itself.

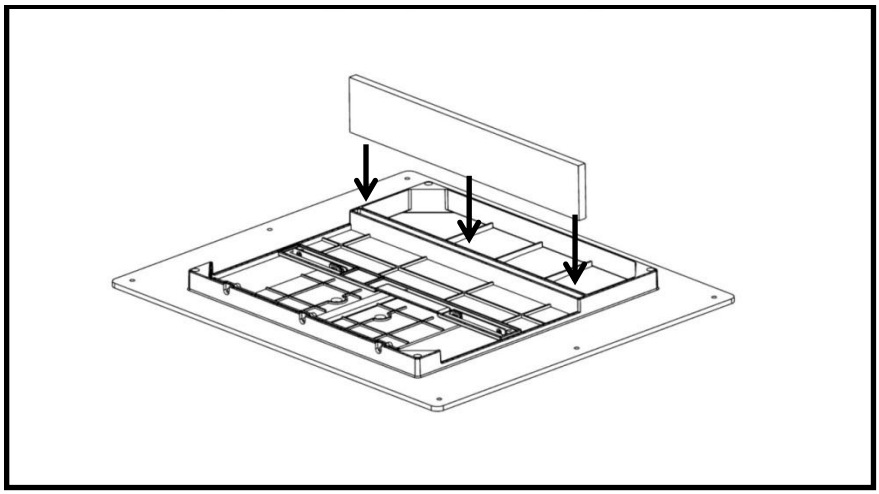
Installation procedure for Ducted Models

1. Before installing the rooftop unit, be sure that the communication cable (supplied by Atwood) is installed between the wall mounted thermostat location and the rooftop unit.
2. Remove self-adhesive backing from roof sealing gasket (11) and place around mounting hole. Apply a modest amount of silicone sealant around the perimeter of the gasket. Position Cormorant air conditioner (1) over 14inch square hole. Front of air conditioner must face direction of travel.
3. Connect supply power to unit.
4. Connect control cable plug coming from unit to the control cable extension. Plug other end of control cable extension into the control key pad at the remote location.
5. Cut polystyrene baffle (2) so that it is the same height as the distance from the ceiling to the steel base of the air conditioner.

Note: The baffle has three sides covered with a self-adhesive foam strip. Cut height from the side without foam strip.



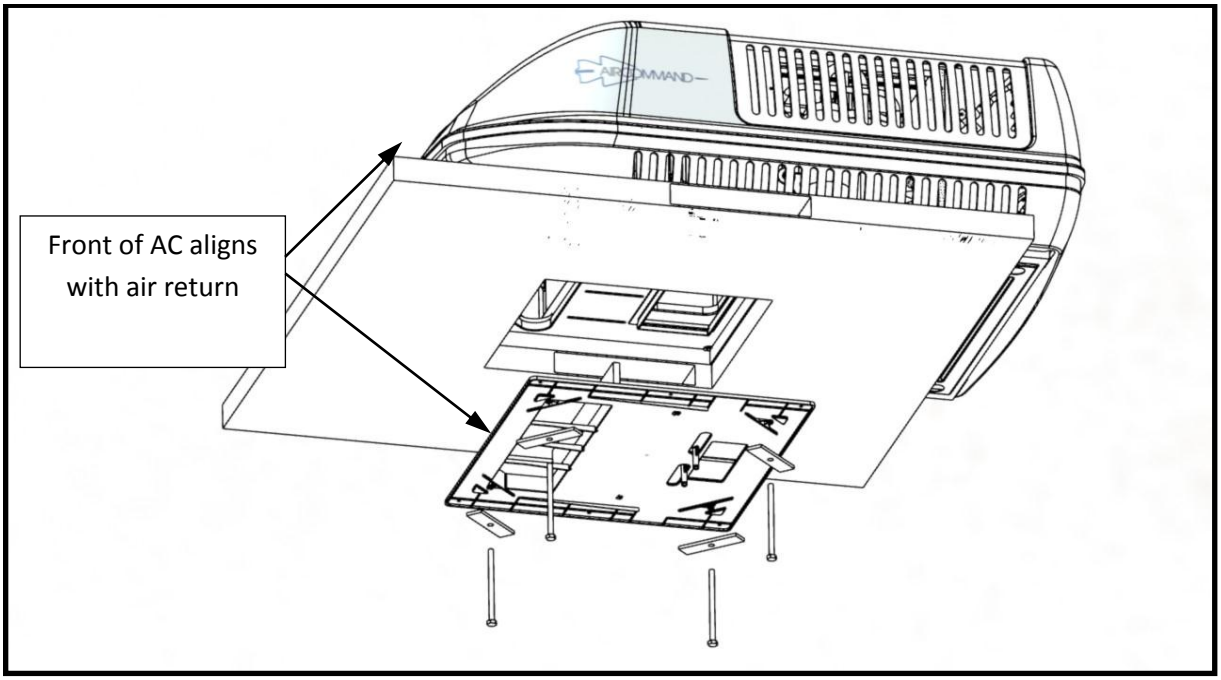
6. Once cut to height insert the baffle into the slot in the plenum deck assembly (3)



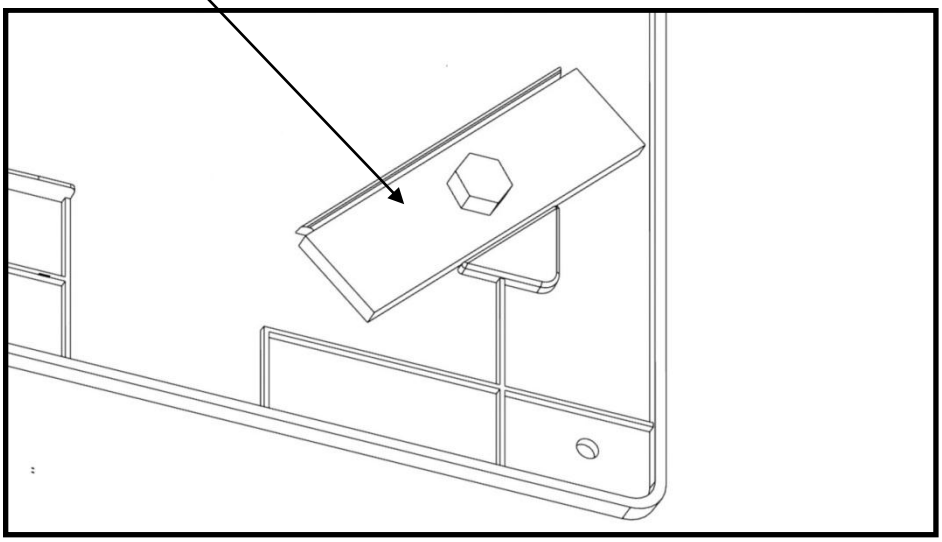
Installation procedure for Ducted Models (continued)

7. Assemble the hold down bars (4) onto the hold down bolts (6). Raise the plenum deck assembly towards the installation hole. Screw the hold down bolts (6) into the inserts on the base of the unit. Tighten bolts until firm, but **do not exceed 6 Nm (4.4 foot-pounds).**

NOTE orientation of plenum deck to air conditioner. The return air side aligns with the front of the air conditioner; the air outlet side is at the rear.

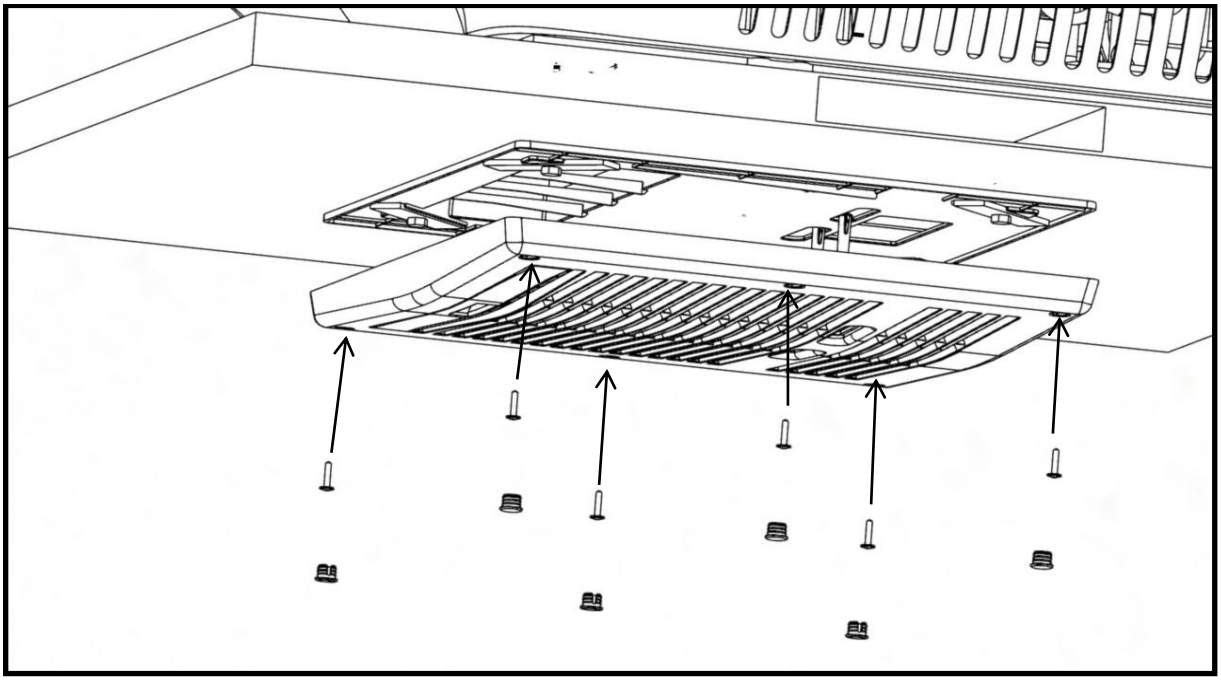


Note: Ensure that the hold down bars (4) are aligned with the recess in the plenum deck before tightening.



Installation procedure for Ducted Models (continued)

8. Attach plenum fascia (7) to plenum deck assembly (3) and caravan/RV ceiling with the six button head screws (8). Cover the screw heads with the cover plugs (9).



VERIFYING NORMAL OPERATION

1. Turn the power on at the circuit breaker
2. Press the ON/OFF button and press the MODE button to select FAN
3. Cycle through the LO, MED and HIGH fan speeds checking that all speeds run.
4. Set mode to COOL, adjust temp via up/down buttons to approx 6°F (3°C) **less** than the display temp (ie. Room temp) compressor will start within three minutes.
5. Set mode to HEAT, similarly set temp to approx. 6°F (3°C) **above** display temp. Compressor will start within three minutes.

After a few minutes the fan will start and warm air will be apparent.

Note: Regardless of the mode selected there will always be at least a 3 minute delay before the compressor starts.

MAINTENANCE

I. Plenum Filters

The plenum filters are the only parts that require routine maintenance. They must be cleaned periodically to ensure that they do not become clogged with dust and other particles and not covered by Warranty.

To clean the two plenum filters, first remove them both from the plenum by pulling them out of the assembly.

The state of the filters can be ascertained from its appearance, the filters are translucent, and if they appear clogged then they should be cleaned. Generally the filters can be cleaned sufficiently by tapping them together to shake loose the dust and particles trapped inside.

⚠WARNING

Airborne particles can pose a health risk, particularly to young children and the elderly. Ensure that filters are cleaned in a safe and well-ventilated area.

If a more thorough cleaning is required then the filters can be washed out using warm soapy water. Care must be taken to avoid ripping the fabric.

The filters should be cleaned every two weeks or more when in use. Prolonged use, higher concentrations of airborne particles, and various other factors may result in the filters needing to be cleaned more often.

Replacement filters can be ordered directly from Atwood Mobile Products, LLC by calling 866-869-3118.

II. Mounting Bolts

Atwood suggests that the hold down bolts are initially checked for tightness within the first 3 months of installation, and thereafter every 12 months if the vehicle is in constant use.

III. Storage

The air conditioner should be run on a routine basis to ensure the components remain in working order.

If the vehicle is in storage or is to remain unoccupied for an extended length of time it is recommended than the air conditioner is allowed to run uninterrupted for 20-30min once every six months.

OPERATING INSTRUCTIONS

- Turn the unit on by pressing the ON/OFF pushbutton once.
- Press the MODE button to cycle through the five mode selections: COOL, FAN, HEAT, DRY, and AUTO Cool/Heat modes.

MODE - COOL

- Cycle mode pushbutton to highlight COOL.
- You may select HIGH, MED, LOW, or AUTO fan speeds by pressing the fan pushbutton. It is recommended that you choose Auto.
- The desired room temperature or set point is normally displayed on the digital display. To adjust the set point, press the TEMP up or down pushbuttons. The compressor will have a delayed start (usually 3 minutes) before unit begins to cool. Note: Any interruption to the power supply will result in a delayed compressor start up.
- To display the actual room temperature press the SLEEP pushbutton for 5 seconds and the room temperature will be displayed. After releasing the SLEEP pushbutton the display will revert back to displaying the set point temperature.

Wall mounted Thermostat control. An AC only model (AC-1361) will not have the furnace pushbutton on the wall pad unit.

MODE – FAN

- For simply re-circulating air, choose the FAN mode. Choose any of the three fan speeds by pressing the FAN pushbutton. Note: Temperature pushbuttons are invalid in FAN mode.

MODE - HEAT (model 1511 only)

- To heat, press MODE pushbutton to highlight HEAT.
- Select desired set point temperature by pressing TEMP up or down pushbuttons. It is recommended that the AUTO fan speed be selected.
- After the delay, the compressor will start. Usually the fan will stop and will not re-energize until the heat exchanger has warmed and then the fan will start to blow warm air.

MODE - DRY

- The DRY mode is used when the room temperature is close to comfortable but you wish to dehumidify.
- Press MODE pushbutton to highlight DRY.
- Set the temperature to desired set point. Note: the fan speed is locked in LOW.
- The compressor will cycle on and off at approximate intervals of 6 minutes to extract moisture from the air.

MODE – AUTO COOL/HEAT

- This mode has an outdoor defrost mode (indicated by a flashing HEAT LED). During the outdoor defrost cycle, the MODE pushbutton is inactive.

SLEEP FUNCTION

- With the unit operating in heat or cool mode, press sleep pushbutton to highlight the sleep light. The unit over the next hour will automatically raise the set point by 2℉. Conversely in heat mode, the set point will be lowered 2℉.

TIMER FUNCTION

- The timer may be used to turn off the unit in the future (up to 24 hours) OR the timer may be used to turn on the unit up to 24 hours in the future.
- Press TIMER pushbutton once and the display will flash. Within 3 seconds, press the timer pushbutton until you have set desired time into the future to turn unit off. A subsequent press of the timer pushbutton will allow the time to start the unit to be programmed.

LOCK FUNCTION (key symbol)

- This provides a means of locking in the mode and fan settings. To lock, press Temp Down pushbutton simultaneously with MODE pushbutton. Hold for 3 seconds and the lock indicator will light. To unlock, repeat above procedure.

DISPLAY SETTING

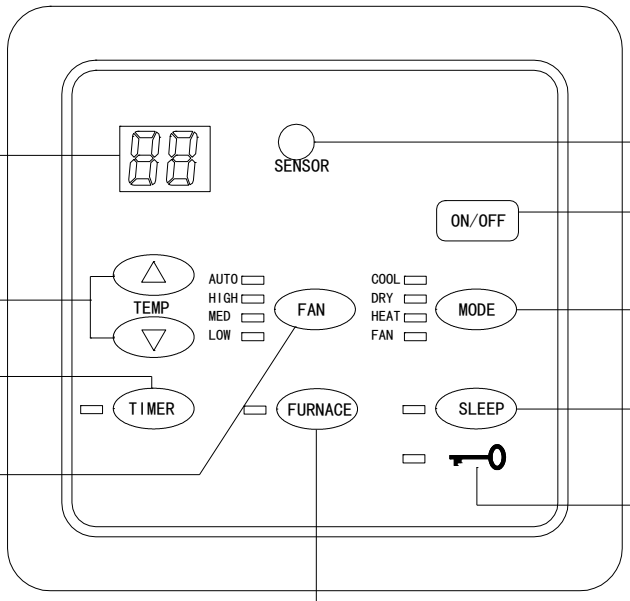
- To change readout from Celsius to Fahrenheit or vice versa: Press Temp Down pushbutton simultaneously with the Fan pushbutton.

REMOTE CONTROL UNIT

Many models have a remote control unit which can adjust the thermostat remotely.

- The remote control has duplicated the thermostat input pushbuttons including: the ON/OFF pushbutton, TEMP UP/DOWN, FAN, MODE, SLEEP, and TIMER pushbuttons
- LEDs in the thermostat control respond to a pushbutton actuation from the remote control unit in the same manner as it would respond to the pushbutton actuation on the thermostat control.
- The remote control requires a CR2025 battery commonly available.

OPERATING INSTRUCTIONS FOR ADJUSTING THE THERMOSTAT



Temperature display area
Display timer setting, set or ro om temperature in C or F

Room temperature setting button

Timer button
Press to activate on/off timer programming mode

Fan speed button
Press to select auto, high, medium or low fan speed

Infra red reception
To receive wireless handset sign al

On/Off button
Press once to start operation
Press again to stop operation

Mode button
Press to select cool, dry, heat, fan, or auto operation mode

Sleep button
Press once to select sleep mode
Press again to cancel sleep mode

Key lock

Furnace button
This button is valid in heatpump + furnace model only
Press once to select furnace as primary heating
Press again to cancel furnace as primary heating

1. Power On/Off

- Press ON/OFF to start or stop the air conditioner.

2. Temperature setting

- The temperature setting is always normally displayed. Press ▽ or △ to decrease or increase the set temperature.

OPERATING INSTRUCTIONS FOR ADJUSTING THE THERMOSTAT (cont.)

2. Temperature setting (continued)

- To display the room temperature, press SLEEP button for 5sec or longer. While this button is depressed, the room temperature is displayed until the key is released. Given the lack of display characters - if the control is displaying temperature in Fahrenheit, temperatures of 100-109°F will be displayed as A0 –A9, temperatures between 110-119°F will be displayed as B0-B9, temperatures between 120-129°F will be displayed as C0-C9, temperatures between 130-139°F will be displayed as D0-D9, temperatures between 140-149°F will be displayed as E0-E9, and temperatures between 150-159°F will be displayed as F0-F9. Temperatures are displayed normally in degrees Centigrade.
- Press ▽ and FAN together for 5 seconds will change the temperature setting from C to F. Valid temperature set range is 16C-30C or 60F-85F.
- Temperature setting is bypassed in Fan mode.

3. Mode setting

- Press MODE button to change the operation mode as follow:-

  Cool→Dry→Heat→Fan→Auto Cool/Heat

  Heat and Auto mode is not available for cooling only model. Auto mode is not available for model where furnace is primary heating.

- Heat LED flashes during outdoor defrost cycle. MODE button press is invalid during this cycle.

4. Overriding

- This function is available in heat pump + furnace model only.
- Press FURNACE button to activate furnace as primary heating. Heat pump operation will be inhibited thereafter. Press the same button again to disable overriding function.

5. Fan speed setting

- Press FAN button to change the fan speed : Auto→High→Medium→Low. Auto fan setting is bypass in Fan mode. Fan speed setting is bypass in dry mode.
- When furnace is working as primary heat source in heat mode, pressing FAN button for 5sec to turn the fan off, display will show “FF” until button is released. Pressing FAN button again for 5sec to let the fan continue running, display will show “F0” until button is released.

6. Sleep setting

- Press SLEEP button to activate or deactivate sleep setting. Sleep is bypass in Fan and Dry mode.

OPERATING INSTRUCTIONS FOR ADJUSTING THE THERMOSTAT (cont)

7. On/Off timer setting

- When the system is on, setting the timer will turn off the unit after the programmed hours were counted down. When the system is off, setting the timer will turn on the unit after the programmed hours were counted down.
- Press TIMER button once to activate on/off timer programming mode. Timer LED and temperature display area flash for 3 seconds showing the number of count down hours left. Thereafter, Timer LED flashes and temperature display area shows the timer setting.
- Press TIMER again to set the timer from 1 to 24 hours in 1 hour incremented in a round robin pattern.
- Hold down this key will change the timer setting automatically every half second.
- Press TIMER until the display shows "—" will cancel the timer setting.
- Should there be no further button press, system will exit from on timer programming mode automatically.
- Timer LED will light up if on/off timer is set.
- Press ON/OFF to start or stop the air conditioner will also cancel the timer setting.

8. Error code display

- Should there be any fault happen with the main board, the relevant error code will be shown on the temperature display area.
- If there is multiple faults happen at the same time, the error code will be shown one after another.
- System will alternate the display of error code and room temperature.
- Depends on the model of main board, the error codes available are:

Fault	Error code
Room sensor failure	E1
Indoor coil sensor failure	E2
Outdoor coil sensor failure	E3
Insufficient of refrigerant	E4
Compressor overload	E5
Not used	E6
Not used	E7
Outdoor air sensor failure	E8
Wall pad room sensor failure	E9

GENERAL SPECIFICATIONS

Air – Conditioner

Height - 12.8 inch (325mm)
Width – 26.6 inch (675mm)
Length - 38.4 inch (975mm)
Weight – 84-86lb (38-39kg)

Air Discharge Plenum

Height - 2.6 inch (65mm)
Width - 21.0 inch (535mm)
Length - 21.8 inch (555mm)
Weight – 1.1 lb (2.4kg)

AC Description	Model Number
13.5K Ducted AC – White	AC-1361W
13.5K Ducted AC – Black	AC-1361B
15K Ducted AC – White	AC-1511W
15K Ducted AC – Black	AC-1511B

	Model 13500	Model 15000
Electrical Rating:	115V, 60Hz	115V, 60Hz
Electrical Rating:	13,500 BTU/Hr	15,000 BTU/Hr
Nominal Heating Capacity:	n/a	15,000 BTU/Hr
F.L.A. Cooling:	12.5 A	13.0 A
F.L.A. Heating:	n/a	13.0 A
Locked Rotor Amps:	63 A	63 A
Refrigerant:	R410A	R410A
Refrigerant:	18 Oz (510 g)	24 Oz (670 g)
Total Installed Weight:	84 lb (38 Kg)	86 lb (39 Kg)

TROUBLESHOOTING

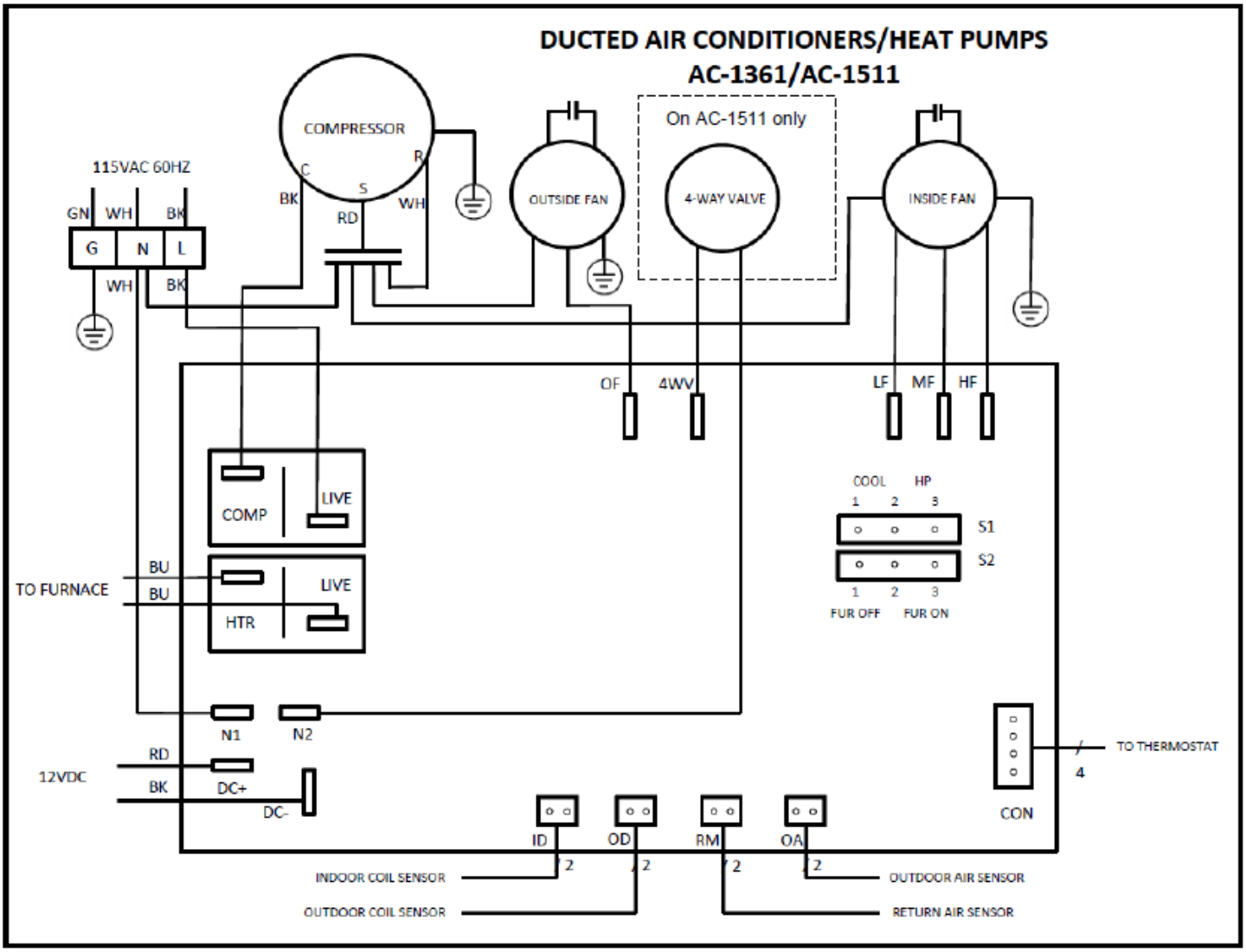
Control Pad will not illuminate when ON/OFF button is pressed	- Check circuit breaker is on - Control cable may be unplugged between outside unit and inside fascia - Check power supply to vehicle
Unit does not cool	- Check circuit breaker is on - Control cable may be unplugged between outside unit and inside fascia - Check power supply to vehicle
Unit does not heat	- Ensure mode has been switched to heat (check Green LED) - Thermostat set point must be above room temperature Note: The compressor has a 3 minute ay before starting - In very cold conditions the unit will take more time to start producing warm air
Insufficient cooling capacity	- Ensure return air filters are clean - Operate the unit on high fan speed to obtain maximum capacity - Ensure all windows, doors, skylights and hatches are closed and curtains/awnings used to reduce heat load, check for adequate insulation in roof & walls

ATWOOD AIR CONDITIONER LIMITED WARRANTY

Atwood Mobile Products warrants to the original owner and subject to the below mentioned conditions, that this product will be free of defects in material or workmanship for a period of two years from the original date of purchase. Atwood's liability hereunder is limited to the replacement of the product, repair of the product, or replacement of the product with a reconditioned product at the discretion of the manufacturer. This warranty is void if the product has been damaged by accident, unreasonable use, neglect, tampering or other causes not arising from defects in material workmanship. This warranty extends to the original owner of the product only and is subject to the following conditions:

1. For a period of two years from the date of purchase, Atwood will replace the complete air conditioner if the coils and plumbing leaks due to corrosion. This warranty includes reasonable labor charges required to replace the complete air conditioner.
2. For two years from the date of purchase, Atwood will repair or replace any part defective in material or workmanship. This warranty includes reasonable labor charges, required to remove and replace the part. Service calls to customer's location are not considered part of these charges and are, therefore, the responsibility of the owner.
3. This warranty does not cover items classified as normal maintenance such as cleaning and replacement of filters.
4. **In the event of a warranty claim, the owner must contact, in advance, either an authorized Atwood Service Center or the Atwood Service Department. Warranty claim service must be performed at an authorized Atwood Service Center (can be found online @ www.atwoodmobile.com) or as approved by the Consumer Service Department, Atwood Mobile Products, 1120 North Main St., Elkhart, IN 46514 USA. Phone: (866-869-3116).**
5. Return parts must be shipped to Atwood "Prepaid". Credit for shipping costs will be included with the warranty claim. The defective parts become the property of Atwood Mobile Products and must be returned as directed by the Consumer Service Department, Atwood Mobile Products.
6. This warranty applies only if the unit is installed according to the installation instructions, by an authorized service technician provided and complies with local and state codes.
7. The warranty period on replacement parts is the unused portion of the original warranty period or ninety (90) days, whichever is greater.
8. Damage or failure resulting from misuse including failure to seek proper repair service, misapplication, alterations, and water damage are the owner's responsibility.
9. Atwood does not assume responsibility for any loss of use of vehicle, loss of time, inconvenience, expense for gasoline, telephone, travel, lodging, loss or damage to personal property or revenues. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.
10. Any implied warranties are limited to two (2) years. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. This warranty gives you specific legal rights and you may also have other rights which vary from state to state.
11. Replacement parts purchased outside of the original air conditioner warranty carries a 90 day warranty. This includes the part at no charge and reasonable labor charges to replace it.

This Atwood AirCommand air conditioner is designed for use in recreational vehicles for the purpose of cooling the cabin as stated in the "data plate" attached to the air conditioner. Any other use, unless authorized in writing by the Atwood Engineering Department, voids this warranty.


DUCTED AIR CONDITIONERS/HEAT PUMPS
AC-1361/AC-1511
COMPRESSOR
C
S
R
On AC-1511 only
OUTSIDE FAN
4-WAY VALVE
INSIDE FAN
115VAC 60HZ
GN
WH
BK
G
N
L
BK
RD
WH
WH
BK
OF
4WV
LF
MF
HF
COMP
LIVE
HTR
LIVE
BU
BU
TO FURNACE
COOL
HP
1
2
3
S1
S2
1
2
3
FUR OFF
FUR ON
N1
N2
RD
BK
12VDC
DC+
DC-
CON
TO THERMOSTAT
4
ID
OD
RM
OA
2
2
2
2
INDOOR COIL SENSOR
OUTDOOR COIL SENSOR
OUTDOOR AIR SENSOR
RETURN AIR SENSOR